

PLEASE AMEND THE APPLICATION AS FOLLOWS:

In the Claims:

1. (Presently Amended) ~~A purified and~~ An isolated and purified polynucleotide selected from the group consisting of:
  - (a) a polynucleotide encoding a polypeptide having ~~an~~ the amino acid sequence of SEQ ID NO: 2, and.
  - (b) a polynucleotide which is fully complementary to the polynucleotide of (a).
2. (Presently Cancelled) The polynucleotide of claim 1 wherein the polynucleotide comprises nucleotides selected from the group consisting of natural, non-natural and modified nucleotides.
3. (Presently Cancelled) The polynucleotide of claim 1 wherein the internucleotide linkages are selected from the group consisting of natural and non-natural linkages.
4. (Previously Presented) The polynucleotide of claim 1 comprising the nucleotide sequence of SEQ ID NO:1.
5. (Presently Amended) A polynucleotide that is an expression vector comprising a the polynucleotide of claim 1.
6. (Previously Presented) A host cell comprising the expression vector of claim 5.
7. (Previously Withdrawn) A process for expressing a MurE protein of *Pseudomonas aeruginosa* in a recombinant host cell, comprising:

(a) transforming a suitable host cell with an expression vector of claim 5; and,

(b) culturing the host cell of step (a) in conditions under which allow expression of said the MurE protein from said expression vector.

8. (Previously Withdrawn) A purified and isolated polypeptide having an amino acid sequence of SEQ ID NO: 2.

9. (Previously Withdrawn) A method of determining whether a candidate compound is an inhibitor of a *Pseudomonas aeruginosa* MurE polypeptide comprising:

(a) providing at least one host cell harboring an expression vector that includes a polynucleotide encoding a polypeptide having an amino acid sequence of SEQ ID NO: 2, and

(b) contacting at least one of said cells with the candidate to permit the interaction of the candidate with the MurE polypeptide, and

(c) determining whether the candidate is an inhibitor of the MurE polypeptide by ascertaining the relative activity of the polypeptide in the presence of the candidate.

10. (Previously Withdrawn) The method of claim 9 wherein the polynucleotide has the nucleotide sequence of SEQ ID NO:1.

11. (Previously Withdrawn) The method of claim 9 wherein in step (c) the relative activity is determined by comparing a measurement of MurE polypeptide activity of at least one cell before step (b) to a measurement of MurE polypeptide activity of at least one cell after step (b).

12. (Previously Cancelled) A compound that is an inhibitor of a polypeptide having an amino acid sequence selected from the group consisting of

(a) a polypeptide having an amino acid sequence of SEQ ID NO:2,

(b) a polypeptide that is a naturally occurring mutant or polymorphic form of (a).

13. (Previously Cancelled) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and an inhibitor of a polypeptide having an amino acid sequence selected from the group consisting of

- (a) a polypeptide having an amino acid sequence of SEQ ID NO:2,
- (b) a polypeptide that is a naturally occurring mutant or polymorphic form of (a).

14. (Previously Cancelled) A method of treatment of a patient in need of prophylactic or therapeutic treatment for a bacterial infection comprising administering to the patient an effective amount of an inhibitor of a polypeptide having an amino acid sequence selected from the group consisting of

- (a) a polypeptide having an amino acid sequence of SEQ ID NO:2,
- (b) a polypeptide representing a naturally occurring mutant or polymorphic form of (a).

15. (Previously Withdrawn) A method of determining whether a candidate compound is an inhibitor of a *Pseudomonas aeruginosa* MurE polypeptide comprising:

- (a) providing a sample that includes a MurE polypeptide having an amino acid sequence of SEQ ID NO: 2, and
- (b) contacting said sample with the candidate to permit the interaction of the candidate with the MurE polypeptide, and
- (c) determining whether the candidate is an inhibitor of the MurE polypeptide by ascertaining the relative activity of the MurE polypeptide in the presence of the candidate.

16. (Previously Withdrawn) The method of claim 15 wherein the polypeptide has the amino acid sequence of SEQ ID NO:2.

17. (Previously Withdrawn) The method of claim 15 wherein in step (c) the relative activity is determined by comparing a measurement of MurE polypeptide activity of the sample before step (b) to a measurement of MurE polypeptide activity of the sample after step (b).